Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)

2. (Previously presented) The system according to claim 12, wherein the second optical surface has deposited the hydrophobic layer with a thickness substantially equal to 0.25 λ/n.

3. (Previously presented) The system according to claim 12, wherein the second optical surface has deposited a hydrophylic layer on a surface of the second optical surface remote from the focused radiation beam that has a thickness substantially equal to 0.25 λ/n.

4. (Previously presented) The system according to claim 12, wherein the optical head further comprises a magnetic coil arranged at a side of the optical head closest to the recording stack such that an optical axis of the optical head traverses the center of the magnetic coil and the recording stack of the optical data storage medium is of the magneto-optical type.

5. (Previously presented) The system according to claim 4, wherein the magnetic coil has an inner diameter smaller than 60 μm.

6. (Previously presented) The system according to any one of claims 12 and 2-5, wherein the

hydrophobic layer comprises a material selected from the group of poly-para-xylylenes, fluorocarbons and copolymers of fluorocarbons.

7. (Previously presented) The system according to any one of claims 4-5, wherein the focused radiation beam has a wavelength λ, wherein the transparent hydrophobic layer has a refractive index n, and wherein the magnetic coil is contained in a partially transparent slider, that is adapted for flying at a distance of $>0.5\ \lambda/n$ and $<2\ \mu m$ from the first optical surface.

8. (Currently amended) An optical data storage medium having a recording stack, formed on a substrate, said recording stack suitable for recording by means of a focused radiation beam with a wavelength λ in air, the recording stack having a first optical surface most remote from the substrate having deposited thereon a transparent hydrophobic layer that has a refractive index n and has a thickness smaller than $0.5\ \lambda/n$, wherein the transparent hydrophobic layer is deposited to extend substantially in a direction of the first optical surface.

9. (Previously presented) The optical data storage medium according to claim 8, wherein the hydrophobic layer has a thickness smaller than $0.25\ \lambda/n$.

10. (Previously presented) The optical data storage medium according to claim 8 or 9, wherein the hydrophobic layer comprises a material selected from the group of poly-para-xylylenes, fluorocarbons and copolymers of fluorocarbons.

11. (Canceled)

12. (Currently amended) An optical recording and reading system, the system comprising:

a laser configured to provide a focused radiation beam;

an optical data storage medium comprising:

a substrate, and

a recording stack formed on the substrate having a first optical surface remote from the substrate, wherein the recording stack is configured for recording by the focused radiation beam; and

an optical head, with an objective arranged on a recording stack side of the optical data storage medium and having a second optical surface closest to the recording stack, from which objective the focused radiation beam emanates during recording, wherein at least one of the first optical surface has deposited a transparent hydrophobic layer on a surface of the first optical surface remote from the recording stack or the second optical surface has deposited a transparent hydrophobic layer on a surface of the second optical surface remote from the focused radiation beam, wherein the transparent hydrophobic layer extends substantially in a direction of an optical surface on which the transparent hydrophobic layer is deposited.

13. (Previously presented) The system according to claim 12, wherein the objective is adapted for recording/reading at a free working distance from the first optical surface smaller than 50 μm.

14. (Currently amended) A method of manufacturing an optical data storage medium, the method comprising acts of:

providing a substrate;

depositing a recording stack on the substrate, wherein the recording stack is suitable for recording by a focused radiation beam with a wavelength λ in air,

depositing a transparent hydrophobic layer on an optical surface of the recording stack most remote from the substrate, wherein the hydrophobic layer has a refractive index n and has a thickness smaller than 0.5 λ/n, wherein the transparent hydrophobic layer is deposited to extend substantially in a direction of the optical surface.